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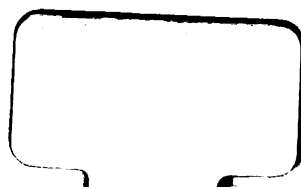
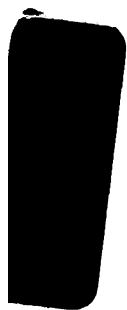
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GENERAL VIEW
OF THE
AGRICULTURE
OF THE
COUNTY OF RADNOR,
WITH
OBSERVATIONS ON THE MEANS OF ITS IMPROVEMENT.

BY
JOHN CLARK,
OF BUILTH, BRECONSHIRE.

DRAWN UP FOR THE CONSIDERATION OF THE BOARD OF AGRICULTURE
AND INTERNAL IMPROVEMENT.

LONDON:

PRINTED BY COLIN MACRAE.

1794.

Bt. from Kyle Glacier

TO THE READER.

IT is requested that this paper, may be returned to the Board of Agriculture, at its Office in London, with any additional remarks and observations which may occur on the perusal, *written on the margin*, as soon as may be convenient.

It is hardly necessary to add, that the Board does not consider itself responsible for any fact or observation contained in this Report, which at present is printed and circulated for the purpose, merely, of procuring farther information respecting the husbandry of this district, and of enabling every one to contribute his mite to the improvement of the country.

The Board has adopted the same plan, in regard to all the other counties in the united kingdom; and will be happy to give every assistance in its power, to any person, who may be desirous of improving his breed of cattle, sheep, &c. or of trying any useful experiment in Husbandry.

LONDON, JUNE, 1794.

RADNORSHIRE.

INTRODUCTION.

THIS is an inland county, and one of the six that compose South Wales. It is bounded on the north by the counties of Montgomery and Salop, on the east by the county of Hereford, and on the south and west by the counties of Brecon and Cardigan. It is situated partly in the dioceses of St. David, and partly in that of Hereford. Two members, one for the county, and one for the borough of New Radnor, compose its quota of the representatives of the Commons of Great Britain in Parliament; and 120 that of the national militia. It contains six hundreds, * fifty-two parishes, 510 square miles, or 326,400 acres. The language of the inhabitants is English in the lower half, and Welsh in the upper; their number may be about 18,000.

The Climate of this county, excepting Wye side, and the vallies that are interspersed through it, is colder than that of the other adjoining counties, except the upper parts of Breconshire. There are two causes that contribute their mutual aid to render the country cold: one, its superior elevation, the
water

* Painscastle, Radnor, Knighton, Kevenllice, Collwen, and Rhyadergowy. Four market towns, Prestigne, Knighton, Radnor and Rhyader.

water falling from its hills toward almost every point of the compass ; the other, the damp clayey nature of a great part of the soil, especially towards the center.

Most of the good land in this county lies on the north-east, and south skirts, or on the banks of a number of beautiful little brooks and streams with which it is almost every where intersected. The banks of these from whence the flood has, in the progress of ages, washed away the superabundance of clay, in some degree, and being sheltered by their respective mountains, are, however, composed of a soil congenial to vegetation, and endued with a climate mild and temperate.

The Soil—is very different, some contains too much sand: but the most prevailing infirmities to which it is subject, is when it contains too great a quantity of clay. This is a most unlucky soil, in a cold, bleak, mountainous district, and in the occupation of bad farmers. The good and the bad soil are so intermixed, that the most rational division seems to be into hills and vallies.

The Soil of the Vallies.—The principal vale is Wye Side which, and the Elan, bound this county for about forty miles, and separate it from Breconshire. The soil throughout all that space partakes of the genus and colour of the hill or mountain immediately above it, from whence the flood has washed down the particles of earth of which it is composed. The hills of the upper district are composed of a hard grey granet of the *siliceous genus*, and the soil of the vallies is of course of the same genus and colour, and very different, in many places, from the stone and soil of the opposite side of the Wye in Breconshire, which is composed of a weak rab of the *argillaceous genus*.

Below the Edow river, however, the stone of the hill begins to assume a darker hue, inclining to red. The shade becomes

becomes darker by degrees as we descend by the Wye Side, till we arrive at Rhydspence, the junction with Herefordshire. In proportion as the soil becomes darker, it also becomes richer and more congenial to vegetation, partaking in a great measure of the nature of the soil of the opposite lands in Breconshire, but of a lighter shade, and, upon the whole, perhaps not quite so rich. The superiority of the local situation, a south-east aspect, however, removes in a considerable degree, if not wholly, this inequality, and renders the hundred of Painscastle beyond comparison the most desirable situation within this county. The superior industry and good management of the inhabitants, as farmers and cultivators of the soil, have been successfully exerted to avail themselves of every natural advantage. They contribute, in a considerable degree, to rescue this much neglected county from a censure almost general, respecting the present humiliating state of its agriculture, excepting a few small spots along the skirts, or by the side of some little streams.

The next portion of this county, in point of importance to its agriculture, is the Vale of Radnor; the soil, very different from that of Painscastle, is of a dark grey colour, well adapted to the nourishing of grain and grass, to which it is alike congenial. But a great part of the land is prevented from being flooded by the hollow bed which the brook has made for itself on the center of the Vale, from whence it cannot easily be raised, though it might be made use of if begun at some of the higher levels. The lands are in general very rich, had they been in the occupation of farmers who would do them common justice, by bestowing on them even a tolerable portion of cultivation. The stones of the hills on the north side are of a knidly sandy nature; those on the south an uncommonly valuable limestone. This lime is conveyed ten, fifteen, or twenty miles

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off for manure, and is found to be preferable to any other in the adjoining counties; yet the inhabitants of this Vale do not use it much, although it is carried by others to so great a distance. Perhaps in the estimation of some people, what is easily had must be of little value. The whole Vale is surrounded by fine dry sheep-walks. The forest of Radnor was once famous for its wool; many thousand sheep are still pastured there in summer.

The Tame River divides this district from Shropshire, on the north. There is a narrow border of uncommon good land on the banks of that river, round Knighton.

The river Lugg, here in its infancy, also waters a beautiful little vale in this county before it enters Herefordshire; but the water here is not so very friendly to vegetation, as it is in Herefordshire.

The Ithan River, which owes its birth to the same hill with the Tame, rises within this county, near its confines with Montgomeryshire. It leads its course nearly through the center of the county, in a south westerly direction. Having received the waters which the Canddwr, Glowedoc, Camaron, Dulas, and Haford, delightful little streams, had collected from their respective districts, throws its contents into the Wye, four miles above Builth.

The Edow rises in Leansaintfread, towards the middle of the county, and after watering a fine narrow vale, empties itself into the Wye, at the romantic village of Aberedow, four miles below Builth.

Each of these little streams has its own little vale, the immediate banks of which are mostly meadows, for the greater convenience of having water turned over them. Some of these streams, the Ithan in particular, are too strong to be turned over the lands, but the lesser brooks, towards the lower parts in particular, are used to great advantage. Flooding, however, is not used near so much as it might have been. From this neglect, a reduction in the quantity
of

of hay is annually sustained, to a considerable amount. This circumstance is the more to be regretted, because this county comes under the description of a *rearing district*, where, in a long winter, the fodder is not only dear, but not to be had at any price.

The soil, towards the middle of the county, is, in many parts, of a weak spungy clay. The stones of the hills (a *rab*) are of the argillaceous genus. Water is peculiarly hurtful to this species of soil, with which, from its retentive nature, it parts with great reluctance. Another misfortune attending this soil, is, that it keeps possession of that portion of water which it catches first hold of, to the exclusion of the air and of other richer moisture contained in the atmosphere, the grand store-house of nature.

In order, therefore, to render this soil productive, the violent attachment to its mortal enemy, water, ought to be subdued. This can be accomplished only by deep and repeated ploughings, which, by separating the parts, opens a number of passages for the entrance of the sun's genial warmth, to dry up that obnoxious moisture, which, in its present state, proves so hurtful to all useful vegetables.

The extensive hundred of Rhydargowy, containing about one third of this county, is, except a few strips on the banks of its brooks, very barren; the natural poverty of the soil is rendered still more unproductive, from the uncommon indolence of the inhabitants, who cultivate the land (if the little scratching they give it in spring deserves that appellation) in the same manner nearly as their ancestors did a thousand years ago.

It some how, most unaccountably, happens, that in almost all mountainous districts in this island, where the land is naturally poor, and stands most in need of the assistance of cultivation from the industry of man, it is always more neglected than the richer lands that do not require such cultivation. I have never yet seen a single farm in any

hilly part of this island that had common justice done to it, either in the cultivation of the soil, or in the rotation of the crops. Did the farmers of the hundred of Painscastle adopt a mode of cultivating their lands, and take the same number of crops that the farmers of the hundred of Rhydargowy do, they would not have half the produce that they have at present.

This subject is of great national importance ; let us examine it a little.

In mountainous districts, the vallies, the bottoms, and lower sides of hills, are the most cultivated. From the superior elevation of the mountains that immediately surround these situations, a number of springs will be continually issuing from the sides of the hills ; the water, from these in its passage down to the first brook, will chill the land, and prevent the growth of any useful vegetation. Hence all lands by the side of such streams are liable to be injured by a superabundance of water, that is continually either oozing or springing from the sides of the surrounding mountains. A very small portion of labour would be sufficient to make a little trench to direct the mountain water down by the side of a field, and save the land from this continually devouring enemy. The thing, however, is not done, and thousands of acres of good hilly land are thus lost.

2. The soil being naturally weak, and containing only a limited quantity of the food of plants, care, it is presumed, would be taken to keep the land clean from weeds, while the corn was in the ground, that no part of the little stock, destined for the support of the grain, should be swallowed up by these intruders.

The practice, however, is so far different, that on viewing almost any field in this district, under corn, one would be ready to suspect that it had been ploughed for no other purpose than to produce a most luxuriant crop of weeds. These hardy natives look fair and healthy, exulting in their native soil,

soil, whilst the corn exhibits marks of pale sickness and languishing disease.

3. This soil not being endued with a strength of body to bear a number of exhausting crops, great care, it is presumed, will of course be taken, that no more than one white corn crop is taken without some green crop being introduced, to give this weak land time to recover before any other exhausting crop is sown; since two crops of white corn would give this poor soil such a wound as it would not soon recover. It would always, no doubt, be kept in remembrance, that wheat, barley, oats, and rye, depend in a great measure upon the land for their support, and, therefore must not follow each other, much less any one of them two years following on the same field. This would give a check to good rich land, but to this poor land would be absolute ruin. The thing, of course, will never be attempted. It will, at the same time, not be forgotten, that clover, pease, turnips, potatoes, and other green crops, depend, in a considerable degree, upon their own leaves for food, which they collect from the air; one or other of these will, of course, be sown after every crop of wheat, barley, rye, or oats, by which means the land will have time to recover, in some degree, the injury which it had sustained by the former exhausting crop of white corn.

Such might, probably, be the suggestions of theory, now behold the practice!

Some time in the winter, or spring, they take the little muck they have to land that has lain for some years in pasture; plough it in, sow barley. After the barley, second year, oats; third year, oats; fourth year, oats; fifth year, oats; and longer, if the land will return the seed. When the land will not return the seed, let it lay for some years again to recover itself.

It is not necessary to add, that the finest land in England might be rendered unproductive by similar bad usage.

ALL

All the land that is wet, is, in its present state, very unproductive, yielding rushes and other coarse aquetices. The wetness, however, shews, that it contains a considerable proportion of clay, and of course, a staple, which, when properly meliorated by repeated exposure to the benign influence of the atmosphere, would, when relieved from the superabundance of water, enable this land to bear crops of good grain, under proper regulations.

Such land ought always to be, up and down; never suffered to lie for many years in pasture, because that, by enabling the soil to acquire a hard surface, would, by shutting out the sun and air, encourage it to return back to its original bad state.

The thing actually done is the very reverse of this. The wet land, provincially, rotten land, has remained from age to age in the same wet state in which we now behold it, without the smallest attempt made to recover it from its lost state. Whilst the little dry spots, provincially, healthy land, are ploughed from year to year, in the way just mentioned; although from its weak state it is not near so well calculated as the clayey land, to bear such crops.

There is, however, a fashion in farming, as well as in dress. The misfortune is, that whilst this is fluctuating and continually undergoing changes almost daily, that stands steadily and unchangeably the same for ages. This is the more to be regretted, because, almost any change in the present practice of agriculture would be of service to the district under review.

The Common Mountains or Waste Lands—will, perhaps, enable us, in some measure, to account for that slovenly practice of husbandry, which has called forth a severity of well meant animadversions, which nothing but truth could justify, and which no other motives than a sincere wish to see it in some degree removed, could induce the writer to impose

impose upon himself the unpleasant task of bringing them forward to public inspection. He would be peculiarly thankful to that individual that would shew him that things were better than he hath represented them.

There are large districts of commons in this county, dispersed in almost every direction, extending for some miles, in the upper part, especially, without a single house or inclosure. Here, perhaps, we shall be successful in endeavouring to trace out the root of that evil, which has proved so destructive to the agriculture of the greatest part of this county.

These extensive commons furnish, in some places, so wide a range for neat cattle and sheep pasture, that the farmer, trusting to these for his support, gives himself little trouble about his farm. His stock brings him money, and he finds it very easy to buy grain at the next market town, with part of that money.

So far things seem to go on very well. One man raises grain in one county, and another raises sheep and cattle in another county; each supplies the wants of the other, and things are thus seemingly as they ought to be: but if, while the rest of the kingdom are going on with improvements, by rendering the land twice or thrice as productive as it was a century back, the Radnorshire Hill farmer never attempts to cultivate or improve his land, he cannot expect much success in the improvement of his breed; for when the land is suffered to lie in its present neglected state, any new breed that may be introduced, will have a tendency to dwindle to the size of the small natives. He must, therefore, in order to make the same money with a farmer in the adjoining county of Hereford, rear three head of neat cattle for one that they do; or, at least, double the number that his own farm, and a breed suited to the lands when so improved, might return him. There cannot, therefore, be any material improvement in the breed, till the land is improved; and I
have

have reason to fear, that the land will not be improved while the people have an opportunity of living idle on the profits of the stock that depasture on these extensive commons.

If this be a fair statement of the case, then the commons are in their present state hurtful to the community at large, in two points of view. They cannot admit of any improvement themselves, in their present state, from the nature of the property; of course here is a large blank equal to near two-thirds of the whole county. They prevent the private property from being cultivated, by holding forth to the inhabitants the means of subsisting without labour.

The quantity of common in this county may be estimated at two hundred thousand acres. Of this quantity, about fifty thousand acres are better land than the general run of the private property in the county; and if inclosed, would be worth from seven to eight shillings a statute acre.

The cultivation of this portion of the common might find employment and maintenance for a number of people equal to one-half the present inhabitants.

The remaining hundred and fifty thousand acres might be kept in pasture and woodlands; the soil being in a peculiar degree favourable to the growth of timber, oak in particular. There are some hundred acres of common hills, that are at present covered with timber, without any inclosures. These have got up in spite of every danger and difficulty that surround them. They are mostly on the side of hills, steep banks, or rocks, where they were in some measure protected from the browsing of the cattle, during their tender age. The soil of this county is remarkably well adapted to the growth of oak. Even in the upper district, where the land is so much despised from its present appearance, in consequence of unusual bad treatment, I have seen some remarkable instances of the oak's partiality to this soil.

Extent.

Extent.—We shall not probably be far distant from the truth, if we divide the county thus :

The tillage land;	-	-	86,000
Meadows, pastures, and wood,	-	-	400,00
The waste lands,	-	-	200,000

Total extent of the county, 326,000 acres.

The Size of the Farms — is, in general, small. The larger from eighty to one hundred pounds rent ; the smaller, from ten to thirty pounds.

The land is occupied—mostly in tillage and hay grounds, on the banks of the Wye, and that of the smaller brooks ; the Vale of Radnor, and that part of the county that joins Herefordshire : but, in the interior parts of the district, in the rearing of neat cattle, sheep, and dairy.

Artificial Grasses—are, the red and white clover, and ray grass ; to which are sometimes added the seeds of the natural grasses of the district, gathered from the stable mangers. It is to be regretted, however, in such cases, that the seeds of obnoxious weeds are sown along with those of the wild burnet, and other kindly grasses, in which the soil naturally abounds. These grasses, however, are seldom sown, except when the land is meant to lay for some years in pasture.

The quantity of seed is from seven to ten pound of clover, and two gallons of ray-grass, per statute acre.

The Grains—are, wheat, barley, pease, rye, with oats of various kinds.

The quantity of seed sown on a statute acre is,

Wheat, when early sown, from	14	to	15	gallons,
Ditto, when late,	-	-	15	to 17 ditto,
Barley,	-	-	25	to 30 ditto,
[Rad.]	c			Oats,

Oats, - - - - 24 to 30 ditto,
 Pease, the large grey, - - 27 to 30 ditto,
 White, and other smaller pease, 22 to 23 ditto.

ROTATION OF CROPS.

First year, wheat after fallow.

Second year, pease.

Third year, barley ; sow clover, let the clover lay for one or two years ; then plough up the clover, lay for Michaelmas wheat. This is the practice of the good farmers in the lower district of the county.

SECOND SYSTEM.

First year, wheat after a fallow.

Second year, barley.

Third year, pease.

Fourth year, oats, and sow clover. This is the practice of middling farms.

THIRD SYSTEM, IN THE HILLY PART OF THE COUNTY.

First year, rye or barley ; then for the next five or six years, oats, while the land continues to make a return of a quantity equal to the seed sown. This is the practice of farmers who are a disgrace to the profession, and who must trust almost wholly to the increase in their live stock for support. There is, however, little prospect of seeing any improvements taking place in this part of the county, while the extensive waste lands hold forth to the people the means of subsisting without labour.

The breed of neat cattle are here superior to that of most of the mountainous district of South Wales, weighing from ten to twenty stone, of twelve pounds each, a quarter. The general colour red, and of the brindled kind. The native black

black small breed is mostly out, in consequence of a mixture with that of Hereford and Shropshire. The Herefordshire breed, it is true, always dwindle away and grow smaller, in proportion as they are carried higher into the mountainous parts of this county. But if the soil had common justice done to it in the cultivation, this misfortune would be considerably diminished.

That mixed with the Hereford breed, does very well on the side of the Wye, and the lower parts, where the land is tolerably well cultivated. They are, however, even there, not only much inferior in size, but, in general, want the bald face, the true characteristic mark of a Herefordshire ox. The sheep are the small natives of the district, weighing from seven to thirteen pounds a quarter. The wool much inferior in quantity and quality, to that of the Ryeland breed of Herefordshire. When the pasture land is dry they are very healthy, and in the present neglected state of cultivation, perhaps, better adapted to the district than any other that could be introduced. When moved into the adjoining counties of England, they thrive well, and are found to be of a more healthy constitution, and less liable to the rot than the natives of these districts. The fleece, from one to two pounds weight.

Manures,—besides the produce of the land, is lime, which, however, is used rather sparingly on account of its high price; for, although they have excellent lime-stone in the lower part of the county, the coal is brought from a great distance to burn it. The quantity of lime laid on a statute acre is from twenty-one to twenty-four barrels, of twenty-five gallons each. On light land, however, this quantity is found to have a very great and beneficial effect for five or six years. Some farmers, however, use a much less quantity. The making of dunghills is much neglected.

The Draining of Land—has of late been well attended to by most of the superior managers on the skirts of the county; but in general it is shamefully neglected, although no other improvement yet introduced into the district has answered so well. Drain-makers have here engaged to drain land, and take the increase in the produce of hay, for three years, as a recompence for the expence; yet such is the wonderful effect of habitual indolence, that the land is suffered to soak under water from age to age, especially in the interior and upper parts of the county. The drains are from eight to ten inches at the top, and from six to eight at the bottom; from two feet six inches to three feet deep. They are filled with small stones within three inches of the top; the stones will sink three inches more; and six inches are at all times full deep for the plough here.

The expence of making the drains is a penny a yard; the farmer finding rough stones and straw. They are well executed. This operation is, however, sometimes attended with much superfluous expence, by making a greater number of drains than there is occasion for. To suppose that this is in some measure occasioned by the drainers being paid by the yard of drains made, and not by the quantity of land relieved from the water, would be uncharitable; we must therefore conclude, that the master drainer who lays them out has not duly considered the anatomical structure of the earth. The human arm may convey some idea of it. If an incision be made across the arm, it will cut through all the veins and arteries in its way; but if the incision be made along the arm, it will cut only one at a time. Hence, when the land is oppressed by water oozing from a number of small springs in the upper side of the field, one drain laid judiciously across, with a gentle fall to the next ditch, may do as much execution as a dozen run downwards from as many springs. I have been told that no drain could be superfluous that carried water. But the conclusion does not
here

here always follow from the premises; since the water of one spring may be introduced into twenty different drains.

Implements of Husbandry—admit of much improvement in this district. They are, in general, too heavy, and by that means subject the cattle to unnecessary labour. The ploughs are by much too long, being from fifteen to sixteen feet; some have lately been made from ten to eleven feet; these are found to answer much better.

Beasts of Labour.—The general proportion is, two ox teams to one horse team. In the upper district, two horses and two oxen work the team. They are sensible of the advantage of working oxen, but the distance from lime and coal compels them to keep at least one horse team on each farm.

They wish to finish *Sowing* in the lower parts of the county early in May; and harvest begins the second week in August. In the upper district, however, much later.

Here are no common fields; all the land is inclosed, except the common mountains.

The Size of the Fields—is from fifteen to twenty acres, on large, and from three to six on small farms.

The Fences—are made by grubbing up such quicks as they can get most conveniently in the woods and coppices; planted from November to March. The length of the quicks, from four to five feet. A bank of two or three feet is raised round the quicks, when set in the ground. The ditches are all made too shallow, from one to two feet only. This is a great fault, in a wet soil especially; for if made three feet deep, they would answer the purpose of open drains as well as fences. When the hedges were originally made, an oversight of much importance was committed in
this,

this, as well as well as in most of the surrounding districts; for no attention whatever was paid to lay out the ditches with such a descent as to enable them to receive and carry off the water oozing from the springs, nor the surface water in times of flood, which might in many places have superceded the necessity of under-drains.

The price of making a new hedge and ditch, is two-pence a yard; for platching an old hedge, about a half-penny.

Wages—for a ploughman, from seven to nine pounds a year.

Women, from three to four pounds.

Day labourers, was six shillings a week; last year it rose to seven.

Time of working, from light to dark in winter; from six to six in summer. Half an hour for breakfast, an hour for dinner.

The Price of Provision—is here very fluctuating. It is considered *high*, when

Wheat is at one shilling per gallon,

Barley and pease at seven pence,

Oats at four pence,

Beef at four pence a pound; mutton and veal, four-pence half-penny—*low*, when

Wheat is at seven-pence a gallon,

Barley and pease four-pence,

Oats two pence half-penny.

The common price of poultry, is,

Pullets, six-pence each.

Ducks, seven pence.

Geese, one shilling and six-pence.

Turkeys, two shillings.

Waste Lands.—When it is remembered that nearly two-thirds of the lands in this county lie waste, and, of course, are of no more intrinsic value to the inhabitants than they were a thousand years ago, reflections of a very humiliating nature obtrude themselves on the dejected mind. The breast that is warmed by the animating beams of patriotism, must be peculiarly hurt by the unpleasant reflection, that while so many of our brave countrymen are compelled to find bread by the cultivation of a foreign soil, so large a portion of a county in our own island should be suffered to lie in the original state in which nature formed it; and that by a degree of indolence which must excite the wonder of succeeding ages, we should leave in the uncultivated soil that portion of the food of society which a great part of the land is so capable of yielding to the hand of industry: yet I know some men in this county, of whose judgment and patriotism I have the highest opinion, that are pretty well satisfied with the waste lands in their present state, because they support a number of sheep and young cattle in summer, at no expence. All this is true: but it is equally true, that although a shilling be of some value, a guinea is still more so. If, therefore, one acre can be made to produce as much food for society as twenty-one do in their present neglected state, the public at large, as well as the land-owners, would be benefited by a general inclosure of the waste lands in the kingdom.

The principal argument made use of for continuing the waste lands in their present state, is, that whatever return they now make is all clear profit, as there is not a single shilling spent in the cultivation of the soil. Yet a very limited portion of penetration will surely be sufficient to discover, that this argument carries in its bosom the seeds of its own destruction; and that a stronger one could not well be adduced in order to shew the absolute necessity of inclosure. The truth of no axiom in politics is more universally admitted, than, that the wealth of a nation depends



pends on the number of its inhabitants. In proportion, however, to the quantity of land thus locked up from the hand of cultivation, there will always be found a diminution in the number of the people. Of the truth of this remark, the district under review presents a most melancholy instance. Fifty thousand acres, a fourth part only, of the waste lands in this county, would furnish food and employment for ten thousand people more than it now contains; and many of the labourers who are now obliged to find bread in other districts might live comfortably by cultivating their own native soil.

Whether the large towns in this kingdom are too populous, is a proposition which I am not sufficiently qualified to decide: but that the provinces are too thin of inhabitants, may safely be asserted without a moment's hesitation, and that more than one-half the food of society which the land is capable of producing, is left in the soil for want of a sufficient number of hands to cultivate it. Among other benefits that must result from the inclosure of waste lands, one would be, that it would prevent, in some degree, the emigration of the peasants from the provinces to the large towns, by opening a wider field for the exertion of industry in agricultural pursuits.

That the tenants in this county would, in general, consider themselves injured by inclosing the wastes, I have reason to believe. It is not very difficult to point out the cause. When a farm is to be let, in valuing the land, the advantage to be derived from the adjoining common is seldom, if ever, taken into consideration. Whatever little profit the tenant makes by his cattle's depasturing the commons in their present state, he considers as clear gain, because he pays neither rent nor taxes for it. This naturally pleases him. But if these lands had been divided, and his landlord's share marked out for him, he would, of course, expect some rent for it. Here rests the root of the whole evil; and here too

too these destructive resources of indolence, which, by furnishing him with the means of a scanty subsistence in the mean time, enables him to slumber on, one year after another, and by neglecting the cultivation of his land, shuts the door against the entrance of that wealth, which might have enabled himself and family, in place of the absolute necessities of life, to partake of the comforts, and, in some degree, the luxuries of society.

It is here taken for granted, that the payment of rent, however just, is a misfortune ; a burthen of which it behoves the farmer to carry as small a share as possible ; and that his prosperity through life, will depend on the lowness of the rent that he pays for his farm. To convince him of the contrary, would certainly require no small portion of eloquence. Yet, however paradoxical it must appear, it is a fact within the reach of demonstration, that no other circumstance has contributed to raise the farmers of this kingdom, to that truly respectable rank which they at present hold in society, more than the necessity they were under of paying rents. Were all the occupiers of land in the nation, exempted from the payment of rent, the ruin of themselves and families, as well as a general famine, would, in less than half a century, probably be the consequence. And it some how most unaccountably happens, that an advance in the rent, in the place of depressing, generally invigorates the spirit of agriculture, by calling forth into action those powers, that had before been permitted to lie dormant.

Notwithstanding the value which the farmers put upon the commons in their present state, I have the permission of a gentleman of the first rank and knowledge of agriculture in this county, and who is not surpassed by any individual within it for the solidity of his judgment, his unremitting attention to business, nor for the accuracy of his accounts, to say, that he kept a large stock of sheep on some of the best districts of commons in this county. They

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were managed in every respect like those of his neighbours. He kept for many years an account, and although he charged nothing for the pasturage of the commons, yet there was but a small difference between the sum total of the profit and loss.

At last he took a hilly farm into his own ; he placed his sheep on this farm, and never suffered them to put a foot again on the commons. He charged his flock with the rent, taxes, and every other expence of attending it ; and then it was that he found the profits of his sheep to increase to a very considerable amount.

Should the waste lands in this county be inclosed, 50,000 acres might be converted into tillage, 50,000 planted, and 100,000 acres be employed in pasture.

The advantage which would attend inclosure, may be easily ascertained by any one, who will take the trouble of examining the very different appearance, which the small slices that are occasionally stolen from the common, make after inclosure, from that of the remaining part of the waste.

The Parochial Roads in this county are bad ; those called turnpike much worse. The pretence of doing the statute labour, except in cases of absolute necessity, I am informed, is nearly given up ; yet common sense is annually insulted by the ridiculous farce of appointing a surveyor of the highway in each parish. Notwithstanding this general neglect, the roads are tolerably safe, except the turnpikes. It hath been remarked, perhaps with more truth than good nature, that it was a most fortunate circumstance for the inhabitants, that the funds of the trustees were but small, since they were not able, on that account, to ruin above one half of the roads, by making them turnpikes. The method of making turnpikes here is rather singular. With the exception of a few spots, the old roads, in use before the introduction of wheel

wheel carriages, were followed up and down hill. The contractors for making the turnpikes, formed the road by gathering it in the form of a large corn ridge, by two or three ploughings. A little soft slate, (rab) on the top of this soft mould, finished the operation. When the horse's hoof and waggon wheel get to the bottom of this mould, the old road is tolerably sound and firm.

This misfortune, however, does not seem to have originated in any want of attention in the acting trustees, but merely from their being too thinly dispersed over the district; for in the neighbourhood of Prestigne and Knighton, where, I am informed, the majority of them reside, the turnpike is kept in very good repair. The luxury, in this county, of good roads, is, in that quarter, still further enhanced by the absence of turnpike gates.* It is unpleasant, however, to add, that the inhabitants of the poorer mountainous districts, are at the same time oppressed by a complicated load of hardships. They pay tolls for travelling bad roads, not unfrequently under indictment, the expence of which they are obliged to pay, as well as that of putting the roads in a state to have them removed. The avenue leading to Builth, from this county, is by far the most productive gate: yet except four hundred pounds advanced by one gentleman about thirty years ago, when the first act was obtained, there has not, I am informed, been one shilling laid out in that quarter since. That gate pays above eighty pounds a year. As there is but little thoroughfare here, most of the money collected at

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* A clause in future acts of parliament respecting turnpikes, directing the trustees to apply the money collected at each separate gate, in paying the interest of a sum to be expended in making and repairing the road, in a stretch on both sides of that gate, and not elsewhere, might in future prevent the exercise of a species of oppression, of which the poor inhabitants of this poor district of the county of Radnor, do not more loudly than justly complain.

this gate, is paid by the inhabitants of the surrounding-district. It seems therefore not reconcileable to the principles of public justice, that about sixty pounds should annually be applied, to pay the interest of a sum expended, in making a road at the other end of the county, and twenty miles distant from this gate.

The Woodlands—are here kept under no system ; nor is the smallest care taken of them by the land-owners in general, who abandon them to the merciless axe of their tenants and cottagers. That class of men, by a species of barbarity, consecrated by immemorable usage, consider all trees as intruders on their lands, and however negligent they may be in other respects, they are in general very careful to destroy all young plants, before they arrive at an age to entitle them to the appellation of *timber*. For after that period, the property in them would be in danger of being conveyed, from the tenant to the landlord. There are, however, a few exceptions to this general practice.

Tenants of superior ingenuity, have contrived a method of getting back the property in trees, which, by their own or their predecessor's negligence, had been suffered to arrive at maturity, and by that means became the property of the landlord. In winter or spring, a few of the lower boughs are cut off and burned out of sight ; the next year a few more share the same fate ; the third year the top is cut off, after which the tree becomes for ever afterwards the property of the tenant, who, by the custom of the country, is entitled to top it as often as he pleases, coming then under the denomination of a *rundle*.

The commission of these depredations, becomes the more mortifying, from the recollection that few, if any, mountainous districts in this island, are so well adapted by nature, to the propagation of timber as that under review. The whole county seems to have been, at some distant period,
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one immense forest; and were it left uninhabited for one century, would all be covered with timber again.

The oak and ash are the great favourites of this soil, and the most healthy as well as the most valuable of the ancient natives. Exotics lately planted by some gentlemen, have experimentally been found to thrive uncommonly well, particularly the *larch*, and the different species of the *pine* and *fir*.

It hath been taken for granted, that the Scotch fir was not capable of planting itself in this latitude; and I have not met with a single instance where the fir rose from the seed's dropping out of the *cone* as it fell from the tree, without being sown in a seed bed, except in the northern part of this island, where large forests are known to have risen by the mere operations of nature, without any interference on the part of man. At Pencarrig, the seat of Thomas Jones, Esquire, in this county, however, I found the fact to be otherwise.

There are a few old Scotch fir trees on a knoll on the west side of the house, where Mr. Jones pointed out to me a number of young fir plants among the grass, that had sprung up from the seed which had dropped from the cone, as it fell from the parent tree; also a number of fine thriving plants, that he had taken up from the same place, and planted in another spot where they were properly protected. The young plants had formerly been annually destroyed by the scythe, or eat by the cattle along with the grass.

In a chasm in the face of a steep rock behind the stable, however, one fir had escaped the general destruction, by being out of the reach of the scythe and the cattle. It is now about three feet high, and a most beautiful healthy plant.

In order, however, to remove every possibility of any doubt, respecting the capability of the Scotch fir to plant its own species in this latitude, Mr. Jones has very politely
promised

promised, that the spot round the old trees, shall, in future, be most sacredly protected from the scythe and cattle, and appropriated wholly to the nourishment of the infant and self-planted fir.*

Paring and Burning—is sometimes practised by the poorer tenants in the hilly districts, as a substitute for lime. Whether this operation be justifiable in any case, has been questioned by men of much experience and deep penetration. That it is dangerous in the hands of an inconsiderate man, who does not look forward to consequences, admits not of a doubt; and it is seldom practised by any others. For one or two years, the crops will be strong and healthy; but it is a species of health, similar to that obtained by the use of spirituous liquors, in the human system, which is invariably followed by debility and disease.

When only one crop of barley had been taken, and the land laid down in clover, burning has been found to answer; but the misfortune is, that in general the land is sown with white corn as long as it will bear the seed, and then left for years after in a great measure useless, until it recovers itself.

This may be termed a *maiden* district, which remains yet to be explored, with respect to its mineralogical wealth.

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* The keelson of the late Royal George, grew on the demesne of Pen-carrig, which does not seem to have been more favoured by nature, in the congeniality of the soil, to the growth of timber of an uncommon high value, than in the prudence of the proprietor in the protection of it; and his elegance of taste in the selection of new varieties, to add to those charms which nature has bestowed on his paternal inheritance. Whoever, in viewing the exhibition at London, has marked with due attention the masterly productions of this gentleman's pencil, in reducing to the canvas some of the most majestic features that nature presents in this neighbourhood, will readily give credit to this remark, and as readily dispense with any attempt of mine, to delineate the topographical aspect of the country.

The mountains exhibit indubitable symptoms of copper, lead, and iron; lime-stone, however, is the only discovery of that kind, that has yet been unequivocally ascertained. Mr. Johnes has lately discovered some indications of a bed of coal, at Pençarrig, which, if actually found, would more than double the value of the landed property in this, as well as the upper parts of Breconshire. Since, besides the great advantage of this fuel for burning lime-stone to manure the land, coal would lay a foundation for the introduction of a variety of manufactures, in pottery wares particularly, for which that neighbourhood affords an inexhaustible store of beautiful clays.

Manufactories—of any kind, there are none in this county. That immense quantity of wool which its flocks produce, is annually sent by land-carriage to Yorkshire and the North of England, to be manufactured into cloth; a part of which is sent back by the same conveyance to be worn by the natives. When it is observed, that women are here seldom employed in the cultivation of the soil, and that the children of the poorer class are brought up in habitual idleness, to see that wool which nature seems to have destined for their support, sent to the other end of the kingdom, to be there manufactured, awakens sensations of a very humiliating nature in the dejected mind.

Yet the people are not addicted to any vice, unless idleness should fall under that denomination. Nature has endowed them with great vigour, both of body and mind; and they want nothing but the means of becoming useful to themselves and to society: and yet, with all these endowments, they are, in a great measure, lost to both; except the men who are employed in the cultivation of the soil. It would, however, be difficult to point out to the poor any measure by which, without the assistance of the rich, they could extricate themselves from their present forlorn state.

Should

Should a cottager's wife get credit for a few stones of wool, and with the assistance of her children spin it, there is no weaver to make it into cloth; and if there was, there is neither tucker nor dyer to prepare it for the market. But even if all these were to be had, *hunger* will not give credit during the time that must elapse, in the performance of these respective operations.

It is melancholy to reflect, that the advance in the price of grain, and other provisions which contribute to the farmer's advantage, has an invariable tendency to oppress the labouring poor; since the wages, which might have been sufficient for a man when the wheat was at seven pence a gallon, is often continued the same when it sells for a shilling. Justice and humanity seem to dictate, that the labourer should have a certain quantity of grain for his weekly maintenance, whatever the price of that quantity should be. This would be nearly the same to the farmers, as they are obliged to make up the deficiency from the poor's rates. But prudence suggests, that every method should be adopted, that can prevent the necessities of the labourers, from forcing them into a habit of applying for relief from that fund.

The farmers in this county, last year, raised the hire of labourers from six to seven shillings a week. Conscientious men, seldom charge their own labourers, the market price for the grain they use.

This district, is wonderfully adapted by nature, for the woollen manufactory. The mountains that produce the fleece, are interspersed by numerous little valleys; and every valley has its own little stream laid out, seemingly for the purpose of working the machines requisite for that employment. Yet a sullen inactivity prevails over the whole county.

This spring, however, something in the shape of a spirit of industry begins to shew itself. Llandrindod Hall, which used to be frequented by people of fashion, to drink the mineral waters,

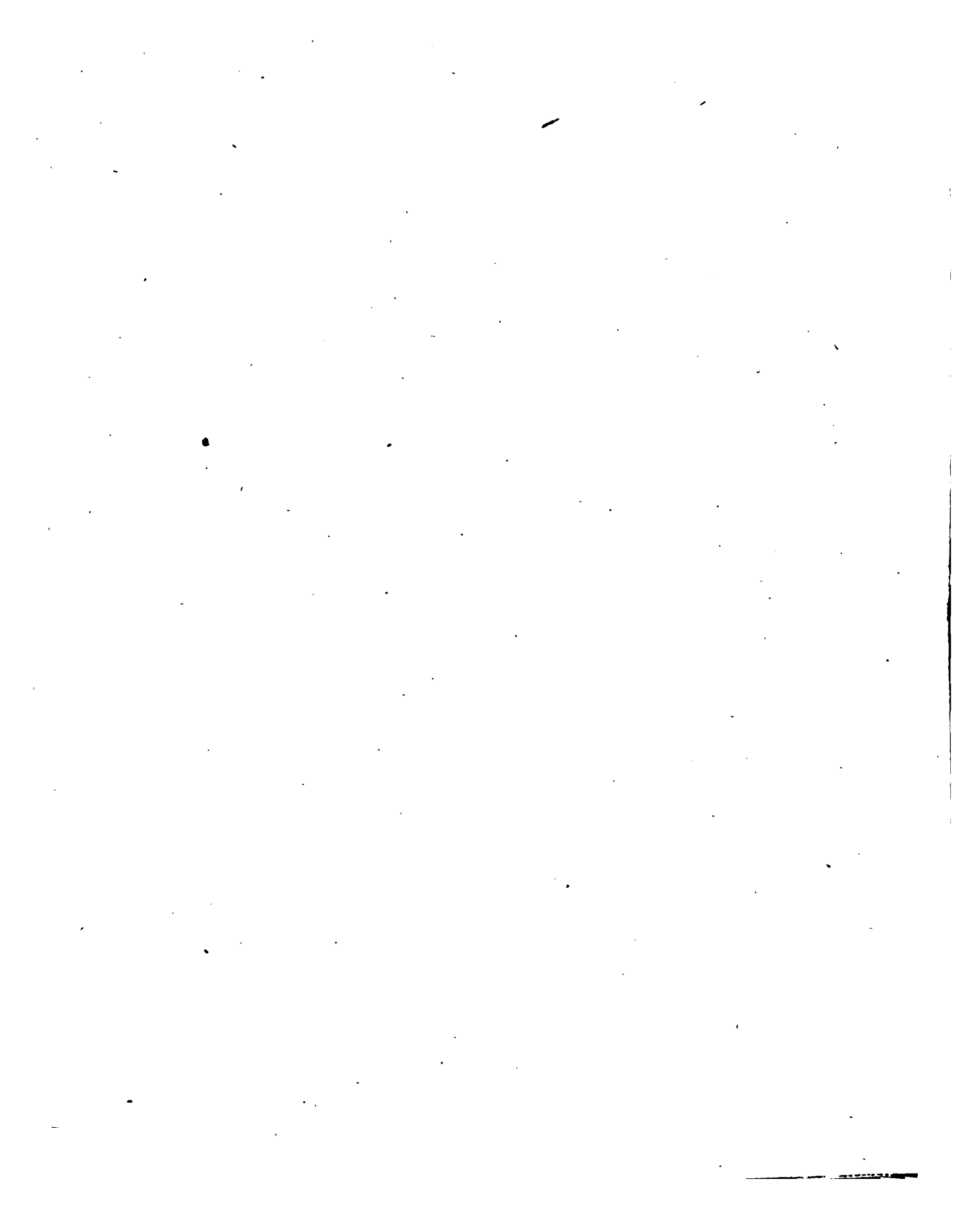
waters, in which the country abounds, but which has for some time been deserted by them, has been rented for the purpose of carrying on a woollen manufactory. The undertakers have engaged the poor, from many of the surrounding parishes, to be employed in that business. This may probably be attended, with the desirable effect, of training up the children of the poorest, to early habits of industry. *

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* When that immense quantity of wool, which this county and Breconshire annually produce, is considered, it is surprising that some person, or company, from England, has not made an attempt to establish a woollen manufactory in some part of South Wales, since many thousand pounds would be saved annually by manufacturing the wool here. Rent, provision, and the price of labour, are here cheap. The land carriage, for two or three hundred miles, is not the only saving that might be made; for the engines that are employed in the manufactory in England are often wrought by steam. All this expence would here be saved; as there are innumerable streams tumbling from the sides of the moutains, in almost every direction, that afford a power sufficient, to move all the machines used in the whole island, in the different manufactories.

F I N I S.



A P P E N D I X

TO THE

SURVEY OF THE COUNTY OF RADNOR.

HINTS FOR FURTHER IMPROVEMENT.

FROM what has been said, it will readily be concluded, that few fortunes have been made by farming in this county; yet a few instances might be adduced, that would be sufficient to shew that the soil here is by no means ungrateful to the hand of industry, when exercised under the guidance of prudence, and directed by judgment. These instances shall, however, at present, be passed over in silence, since the generality of the farmers here most scrupulously avoid mentioning the profits they make of their lands, and would be apt to ascribe the writer's motives, for bringing them forward to public inspection, to very different ones from those, which, he trusts, influences his conduct.

The following *rotation* of crops may, with little hazard, be recommended to the land-owners in the *upper district* of this county, as very beneficial to their tenants, in case they can prevail on them to adopt it, of which, however, I entertain but little hopes.

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ON THE BEST TILLAGE LAND.

1st Year, Turnips, strongly mucked.
 2d Year, Barley ; sow clover.
 3d Year, Clover.
 4th Year, Wheat.
 5th Year, Oats, if oats must be sown; but the best method on such land would be, to begin again with a fallow for turnips.

2. SYSTEM ON THE POORER TILLAGE LAND.

1st Year, Turnips.
 2d Year, Barley ; sow clover and rye-grass. Let the land lay in pasture for four or five years, then

1st Year, Oats.
 2d Year, A fallow.
 3d Year, Wheat.
 4th Year, Pease.
 5th Year, Oats.
 6th Year, Fallow for turnips.

The objection to be made to this rotation of crops I am well aware of. It will be said, that oats are too sparingly introduced : that the *oat straw* is the principal support of their cattle in winter, on the profits of which lie their main dependence : that therefore, oats, oats, oats, in perpetual succession, must be still continued. But if the green crops of turnips and clover were to be adopted, they would in a great measure supersede the demand for oat straw, and double the return that the land makes to the farmer by the present destructive practice.

BREAKING UP OLD PASTURE

WHEN coarse land, that had long lain in pasture, is to be turned into tillage, paring and burning is generally used in the upper district. The following method will in general, however, be found to be preferable.

Let the surface sod, with the sward, be cut off, as *at present*, with the mattock or the breast-plough; but in place of burning this sod, let them be gathered into heaps, in the proportion of eight or ten on one acre. Let these heaps be placed in rows, at the distance of twenty-two yards from one row to another, and let the rows be in *straight lines*. The heaps will be then distant from each other in the rows about twenty-two yards.

In summer, or beginning of autumn, let the space between the rows be ploughed, and let it remain in that state till spring, when it must be ploughed again, and sown with oats, when, (notwithstanding the poverty of the soil) from the *total* absence of weeds, a good crop may be expected.

Let the preceding year's muck be brought to the field as usual, and when the oats are off the land, mix the muck and those heaps together. Let this manure be used for barley in the spring, or which is still better, for turnips in July.

Where lime can be had, it should be mixed with the surface sod, the first summer.

As it is not to be expected, that the farmer will risk this experiment on an extensive scale at first, he may try it on a *part* of a field which he is resolved to burn, and he will, in the succeeding crops, find a visible advantage in suffering the surface sward to rot in heaps, in place of burning it

it into ashes : and since the expence of this is not greater than that of burning, no material risk will be run.

PEAT ASHES.

THE upper district of this county abounds in extensive turberies. If the farmer would cut a large quantity of peats, and burn them near the pit, the ashes would furnish a most certain manure for his meadows and corn land. It ought, however, to be remembered, that these ashes should be kept perfectly dry till they are laid on the land, and that the land on which they are laid should also be dry.

These ashes should be sown in April or May, on the meadows or corn land, after the seed has been sown in the proportion of from fifteen to twenty bushels an acre.

THE SURFACE OF WASTE LAND AS A MANURE.

THE sheep are not folded in this county. When, therefore, a farm adjoins an extensive common, it would be found of much benefit to plough a small spot of the common next to his inclosed land, which would encourage the sheep that depasture on those hills to use it as a fold at night, and to avoid the flies in hot weather. To carry the surface of the soil, thus enriched, to his land, would be attended with a benefit to his crops, of which he who has never made the experiment is little aware.

HEDGES.

SHOULD the waste, and other neglected lands, ever be inclosed, it has been observed, that it would be difficult, if not impossible, to get quick-hedges to grow in many places. In order, therefore, to insure the health and prosperity of the

the quicks, a small quantity of lime should be mixed with the mould in which they are placed; this, in all *reasonable* degrees of elevation, will be a certain means of insuring their growth, as has been experimentally found.

In wet land the lime will have little effect, but salallows and other aquatics should be planted there.

PLANTATIONS.

PLANTING borders, or belts, from fifteen to thirty yards wide, according to the size of the field, would be attended with much benefit in the hilly districts, where shelter is so much wanted, especially against the north and west winds. In flat rich corn lands, these belts, it is true, are very properly objected to, as they prevent the corn from ripening, by with-holding from it the animating rays of the sun. But in hilly cold countries, the same objection does not lie, especially in the *north* and *west*, the points in which shelter is most wanted.

There is the more encouragement to make plantations in the form of borders here, from the recollection that little more expence is required than would be requisite to protect the field *alone*. Every new planted fence ought to have a double ditch, and a double dead fence. One ditch, and one dead fence, on each side of the belt, will be sufficient, as the white thorn hedge may be planted behind each ditch, where they will be out of the reach of the cattle, and by having the mould into which they are planted properly limed, they will, in a few years, be able to protect themselves, before the trees can arrive at such a height as to annoy them.

In order to point out to the reader's own inspection, how far this method of improving this country is reducible to *practice*, I shall take the liberty of recommending to his attention a spot in the upper part of the county, where the experiment has, though on a small scale, been tried with
wonderful

wonderful success, which he may see at Llwynbarfiad, near Rhayder, the seat of Morgan Evans, Esquire. *

About eighteen years back, Mr. Evans planted some waste spots near his house with Scotch and other firs, which are now from twenty to thirty feet in height, and in a most flourishing condition. They have for some years been thrown into the adjoining fields, and afford a pleasant shade in summer, and a comfortable shelter in winter to his stock. By the time the trees are thirty years old, they will make him a return equal at least to what he has obtained in the same space of time from an equal number of acres of the best land on his estate.

This circumstance, together with the Scotch fir's planting itself at Penycarrig, the seat of Thomas Jones, Esq. is well worthy the attention of the land-owners in the upper district of this county, who are desirous either of augmenting their wealth, or adorning their estates.

The judicious and rational system of farming, practised by Mr. Evans in this much neglected quarter of the county, deserves the notice and imitation of his neighbours, and fully confirms what has been so often mentioned in the preceding pages, that the sloth and idleness of the tenant is the cause of the humiliating state of agriculture in this quarter, and ought to be attributed only in a limited degree to the poverty of the soil.

WOOL.

It is found experimentally, that the *same* sheep will produce wool of different degrees of fineness on different farms. The wool-buyers here know well on what farms to look for the finest wool. It is the wool of *particular farms*, more than particular breeds of sheep, that they are anxious to purchase. When a farmer moves, and takes his
sheep

sheep along with him, a change will the first year be visible in the wool.

That bank, by the side of the River Wye, extending about sixteen miles from the river Edow to Herefordshire, is said to be very congenial to the growth of fine wool. The aspect a south-east one. The stones of the mountains are of the *silicious* genus; and the prevailing feature of the soil is a red sand, mixed, however, with a notable quantity of clay.

F I N I S .



